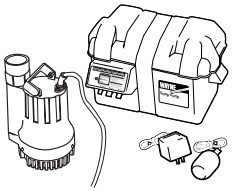
Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

WAYNE®

12 Volt Backup Sump Pump



Description

The ESP25 is a battery operated back-up sump pump. It does not replace a regular pump. It is designed to provide protection in the event household electrical power fails.

Unpacking

Inspect this unit before it is used. Occasionally, products are damaged during shipment. If the pump or components are damaged, return the unit to the place of purchase for replacement. Failure to do so could result in serious injury or death.

Safety Guidelines

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols.

⚠DANGER

Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠WARNING

Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION

Caution indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

Notice indicates important information, that if not followed, may cause damage to equipment.

General Safety Information

⚠DANGER

Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in a flammable and/or explosive atmosphere. Pump should only be used to pump clear water. Fatal injury and/or property damage could result.

⚠DANGER

If the basement has water or moisture on the floor, do not walk on wet area until all power is turned off. If the shutoff box is in the basement, call an electrician. Remove pump and either repair or replace. Failure to follow this warning could result in fatal electrical shock.

⚠WARNING

All wiring must be performed by a qualified electrician.

⚠WARNING

Do not expose battery to sparks or flames as an explosion or fire could result.

⚠WARNING

Battery acid is corrosive. Avoid spilling on skin or clothing. Eye protection must be worn when handling the battery.

⚠WARNING

A check valve must be used on the primary sump pump discharge.

⚠WARNING

A ground fault circuit interrupter is required.

NOTICE

This pump must only be used to pump clear water. This pump is not designed to handle effluent, salt water, brine, laundry discharge or any other application which may contain caustic chemicals and/or foreign materials. Pump damage may occur if used in these applications and will void warranty.

Battery Information

The system is designed to operate most efficiently with sealed lead acid (SLA) batteries. Deep cycle marine batteries or automotive style batteries can also be used.

Sealed lead acid batteries cost slightly more, but they can last longer. Among the manufacturers of sealed lead acid batteries are Hawker, Panasonic, PowerSonic, Yuasa and Eagle Picher.

The oversize battery case (included) will accommodate a 12-volt SLA battery or a 12-volt deep cycle marine battery (up to a 27-frame size).

REMINDER: Keep your dated proof of purchase for warranty purposes! Attach it to this manual or file it for safekeeping.

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Battery Information (Continued)

Be certain that the area around the batteries is well ventilated. Before servicing the batteries, blow away gasses by waving a piece of cardboard near the batteries.

⚠DANGER

Dangerous hydrogen gas can be released from batteries while charging. Sparks can ignite the gas in an enclosed space. Wear safety goggles when connecting batteries. Battery connections should be made in a well-ventilated area.

⚠DANGER

Working in the vicinity of lead acid batteries can be dangerous. Before making connections or servicing the batteries, read and follow instructions in all applicable instruction manuals. To reduce the risk of battery explosion, follow the instructions in this manual and those published by the battery manufacturer, as well as those of any other equipment used in the surrounding area.

An assistant should be present or close enough to come to your aid in the event of an emergency. Have a reliable source of fresh water and soap nearby in case battery acid contacts clothing, skin or eyes.

Wear eye and clothing protection when working around lead acid batteries.

Avoid touching your eyes when working around lead acid batteries.

⚠WARNING

If battery acid contacts your eye(s), flush with cold running water for 10 minutes and seek immediate medical attention. If acid contacts your skin or clothing, wash immediately with soap and water.

⚠WARNING

Never smoke or allow a spark or flame in the vicinity of the battery.

⚠WARNING

Avoid dropping metal tools on the battery posts because they may spark or short-circuit the system or battery, causing an explosion.

Installation

NOTICE

Installation of this unit may take several hours. Before disabling your main pump, have ready an appropriate means of evacuating the sump.

1. Turn power to main pump off.
2. Pump must be installed using 1¼" or 1½" rigid PVC piping.

Pump Installation

The ESP25 can be installed as a back up system with a separate dedicated discharge line (Method 1), or tied into an existing sump pump line (Method 2, page 3).

⚠DANGER

Unplug the existing AC pump. Failure to follow this warning could result in fatal electrical shock.

1. Verify that the existing AC pump is in good working order. If the AC pump is questionable, it is typically recommended that the unit be replaced with a 1/3 or 1/2 HP pump.
2. Remove any silt or accumulated debris from the sump pit and surrounding area.

Method 1 (Preferred)

1. Locate the ESP25 on a solid, level surface in the sump pit. Do not place the pump on a loose or sandy surface. Small stones or sand may damage the pump resulting in potential pump failure.
2. The pump has a 1-1/4" NPT discharge adapter. If a 1-1/2" discharge pipe is desired, glue pipe coupling to outside of adapter . Smaller diameter piping will reduce pump flow, rate and performance.

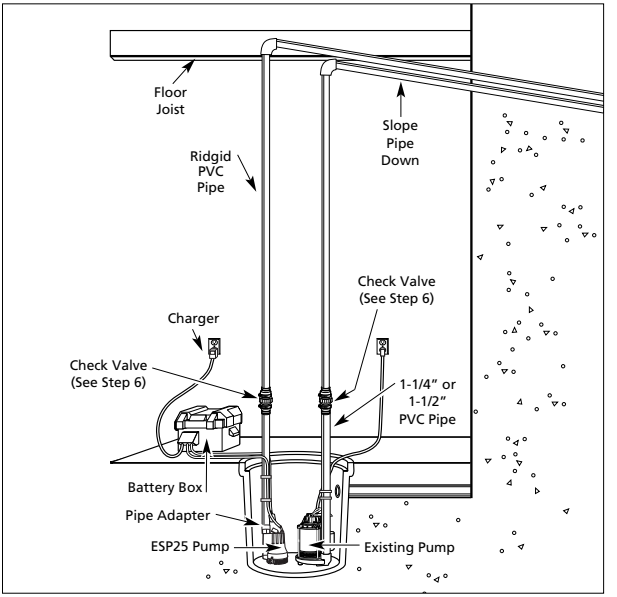

Figure 1 - Method 1

Installation (Continued)

3. Cut a 4' section of 1-1/4" or 1-1/2" diameter rigid PVC pipe. Cement 1-1/4" pipe to a threaded fitting. Cement 1-1/2" pipe into pipe coupling. Attach 1-1/4" pipe section to the ESP25 discharge adapter.
4. Screw on to pump discharge.

NOTICE

Be careful not to strip or cross thread plastic fittings or check valves. Flex hose is not recommended. Rigid PVC or metal pipe is required for a permanent installation.

5. Place the pump with the 4' section of PVC pipe on a solid, level surface in the sump pit on an elevated surface.
6. Attach a rubber check valve (sold separately) to the top of the discharge pipe. This will allow the pump or check valve to be removed easily for servicing.

NOTE: Check valves can be placed directly in the pump discharge if desired. However, for ease of disassembly, it is recommended that check valves be placed above the sump as shown in Figure 1.

The remainder of the discharge pipe installation will vary depending on individual circumstances. Using sound plumbing practices, route the discharge pipe to an exterior wall by the shortest path. Keep turns to a minimum because they reduce flow output of the pump. The pipe that exits the building structure should be sloped downward so that water will not freeze in the pipe.

When installing the separate discharge pipe, drill through the outside wall with appropriate drilling equipment. Seal the hole to prevent water from entering.

Method 2

If a separate, dedicated discharge is not possible as in Method 1, the ESP25 pump can be tied in to the AC-operated pump's discharge pipe by installing a "Y" connector. Two check valves will be required.

1. Locate the ESP25 on a solid, level surface in the sump pit. Do not place the pump on a loose or sandy surface. Small stones or sand may damage the pump resulting in potential pump failure.
2. The pump has a 1-1/4" NPT discharge adapter. If a 1-1/2" discharge pipe is desired, glue pipe coupling to outside of adapter. Smaller diameter piping will reduce pump flow, rate and performance.
3. A check valve will be required in the discharge line of **BOTH** the Main AC pump and the ESP25 pump to prevent recirculation of water into the sump pit. System will not function without two check valves.
4. Cut a 4' section of 1-1/4" or 1-1/2" diameter rigid PVC pipe. Cement 1-1/4" pipe to a threaded fitting. Cement 1-1/2" pipe into pipe coupling. Attach 1-1/4" pipe section to the ESP25 discharge adapter.
5. Screw on to pump discharge.

NOTICE

Be careful not to strip or cross thread plastic fittings or check valves. Flex hose is not recommended. Rigid PVC or metal pipe is required for a permanent installation.

6. Place the pump with the 4' section of PVC pipe on the sump floor or on an elevated surface if required.
7. Attach a rubber check valve (sold separately) to the top of the discharge pipe. This will allow the pump or check valve to be removed easily for servicing.

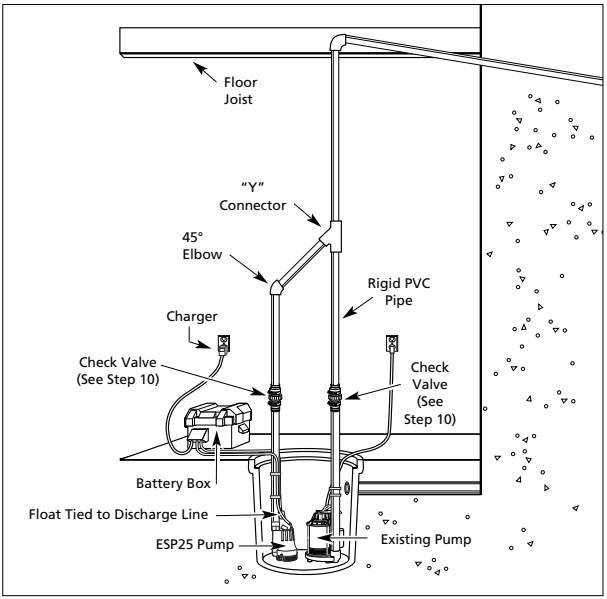

Figure 2 - Method 2

Installation
(Continued)

8. Duplicate the discharge piping arrangement for the primary AC pump if the existing discharge line has to be adjusted to accommodate a second pump.
9. Glue a 45° elbow to the short pipe on the ESP25 pump. Glue a "Y" adapter to the short pipe on the existing pump, as shown in illustration for Method 2.
10. Glue a short piece of PVC pipe between the 45° elbow and the "Y".

NOTE: Check valves can be placed directly in the pump discharge if desired. However, for ease of disassembly, it is recommended that check valves be placed above the sump as shown in Figure 2.
The remainder of the discharge pipe installation will vary depending on individual circumstances. Using sound plumbing practices, route the discharge pipe to an exterior wall by the shortest distance.

Methods 1 and 2
The ESP25 float switch should be adjusted so that the back up unit turns on once the water level is higher than the normal "ON" level for the main pump. Use the wire ties provided to secure the float switch. Make sure power wires do not interfere with float switch, pump inlet or main pump operation. The backup pump must not be allowed to run dry.

Control Box Installation

1. Attach control box to the side of battery box as shown in Figure 3. Place battery in box, attach red cable to positive battery post and black cable to negative post. Put lid on box.

⚠CAUTION

If cables are reversed, damage to the control box or battery could result, and warranty will be void.

2. Place battery box within six feet of the sump and a 115 VAC separately fused outlet. The outlet must be protected by a ground fault circuit interrupter (GFCI). The area must also be clean, dry and well-ventilated.

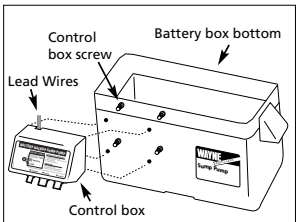

Figure 3

3. Plug the float switch, pump and charger into the control box. The connections are marked on the control box.
4. Test pump operation by filling the sump with water while the main pump is unplugged. If the pump operates properly, plug the charger into the GFCI protected outlet to begin charging the battery.
5. Protect electrical cord from sharp objects, hot surfaces, oil and chemicals. Avoid kinking the cord and replace damaged components immediately.

Operation

⚠DANGER

Always disconnect the power source before attempting to install, service, relocate or maintain the pump. Never touch sump pump, pump motor, water or discharge piping when pump is connected to electrical power. Never handle a pump or pump motor with wet hands or when standing on wet or damp surface or in water. Fatal electrical shock could occur.

⚠DANGER

Risk of electrical shock! Use a GFCI receptacle to reduce the risk of fatal electrical shock. Cutting the cord or plug will void the warranty and make the pump inoperable.

1. After installation, the backup pump will start when the water level rises above the depth that the primary pump should start.
2. The control box has a DC charger designed to shorten the recharging time of your battery, and to prevent overcharging. In addition, the control box has a time delay which keeps the pump from repeated, short cycles when it shuts off. This time delay feature will allow the pump to run two to three seconds after the switch reaches the off position.
3. The control box contains a multi-colored indicator light. When AC power is present, the light will indicate the charging state, and not reflect actual battery voltage, particularly with a defective battery. In order for the indicator light to provide an accurate reading, steps "a" through "d" must be followed.

⚠DANGER

Unplug main AC pump and the charger. Risk of electrical shock!

a. After main AC pump and charger are unplugged, a power off alert tone will sound for 30 seconds.

b. Lift and release the float switch to activate the backup pump.

c. When the pump stops, read the test light:

Green: Indicates battery is charged.

Yellow: Voltage is low, indicating battery is partially charged.

Red: Battery is completely discharged or defective.

d. Plug in charger and main AC pump.

When AC power is out, and when pump has been running, the light will indicate battery status.

Operation (Continued)

4. A chirping sound from the control box will accompany the red light, indicating that the battery may require attention or replacement. Voltage is only an indicator of battery condition and may not reflect the true condition of the battery. See Maintenance for instruction on assessing battery condition.
5. A single thirty-second tone will sound when power to the system is interrupted. The unit will reset automatically when power is restored. A three-second tone will sound every time the pump starts.

Maintenance

⚠DANGER

Always disconnect the electrical supply before attempting to install, service, relocate or perform any maintenance. If the power source is out of sight, lock and tag in the open (off) position to prevent unexpected power application. Failure to do so could result in fatal electrical shock. Only qualified electricians should repair this unit. Improper repair could result in fatal electrical shock.

NOTICE

Once a month, check battery condition. To check battery condition follow steps listed below:

1. Unplug the wall charger.
2. For batteries with top caps that can be removed, the electrolyte level should be checked and filled to manufacturer's specifications. The charge for each cell should be checked with a hydrometer. A specific gravity of 1.265 indicates the battery is at full charge. If the specific gravity of any of the cells varies more than .050, the battery should be replaced.

   NOTE: An inexpensive hydrometer can be purchased at an automotive parts dealer.
3. Inspect the terminals and clamps for corrosion and tightness. Clean and tighten as required.
4. Unplug the main pump and fill sump with water until back up pump turns on. Repeat process two times to be sure pump is operating normally.
5. If pump operates normally, plug charger into wall outlet, turn on main pump. If pump fails to operate normally, see Troubleshooting guide and correct problem. Repeat step 5.

BATTERIES

⚠DANGER

Dangerous hydrogen gas can be released from batteries while charging. Sparks can ignite the gas in an enclosed space. Wear safety goggles when connecting batteries. Battery connections should be made in a well-ventilated area.

⚠DANGER

Working in the vicinity of lead acid batteries can be dangerous. Before making connections or servicing the batteries, read and follow instructions in all applicable instruction manuals. To reduce the risk of battery explosion, follow the instructions in this manual and those published by the battery manufacturer, as well as those of any other equipment used in the surrounding area.

⚠WARNING

If battery acid contacts your eye(s), flush with cold running water for 10 minutes and seek immediate medical attention. If acid contacts your skin or clothing, wash immediately with soap and water.

⚠WARNING

Never smoke or allow a spark or flame in the vicinity of the battery.

⚠WARNING

Avoid dropping metal tools on the battery posts because they may spark or short-circuit the system or battery, causing an explosion.

Follow battery manufacturer's maintenance procedures and schedules. Be certain that the area around the batteries is well ventilated. Before servicing the batteries, blow away gasses by waving a piece of cardboard near the batteries.